

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
3 February 2005 (03.02.2005)

PCT

(10) International Publication Number
WO 2005/009686 A1

(51) International Patent Classification⁷: **B25B 3/00**,
5/02, 27/06

MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PI, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(21) International Application Number:
PCT/US2004/023782

(22) International Filing Date: 17 July 2004 (17.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/489,072 21 July 2003 (21.07.2003) US

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:
— of inventorship (Rule 4.17(iv)) for US only

(71) Applicant and

(72) Inventor: **PAUSE, Barbara** [DE/US]; 7161 Christopher
Court, Longmont, CO 80503 (US).

Published:

— with international search report
— before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: MEMBRANE MATERIALS WITH THERMO-REGULATING PROPERTIES FOR FABRIC STRUCTURES

(57) Abstract: Membrane materials for fabric structures consisting of a woven fabric which is coated on one or both sides with an elastomeric compound comprising finely divided phase change materials such as crystalline alkyl hydrocarbons or salt hydrates. The membrane materials facilitate thermo-regulation due to latent heat absorption and latent heat release in the phase transition range of the phase change material, which enhances the thermal comfort of the enclosed structure, they are applied to and leads to energy savings.

WO 2005/009686 A1